



Secretariat of ISO/TC 20/SC 13

our date
2000-4-24
your date

our reference
ISO/TC 20/SC 13/N207
your reference

TO: ISO/TC20/S C13 Mailing List

FROM: ISO/TC20/SC13 Secretariat

SUBJECT: Draft Minutes of ISO/TC20/SC13 Meeting of 14 December 1999

Attached is a copy of the draft minutes of the 14 November 1999 meeting of ISO/TC20/SC13 (SC13) held in Frascati, Italy.

Best regards,

A handwritten signature in black ink, appearing to read "David L. Townley", written over a horizontal line.

David L. Townley
ISO/TC 20/SC 13 General Secretary

Attachment

Subject: Minutes of the Eighteenth International Organization for Standardization (ISO)/Technical Committee (TC) 20/Subcommittee (SC) 13 Meeting

Place: Frascati, Italy

Date: 14 December 1999

ATTENDANCE

Name	Country/Organization
Eduardo Bergamini	Brazil/INPE
Arvind Bastikar	Canada/CSA
Qian Xiaolian	China/CASI
Klaus Lenhart	ESA/ESOC
Carlo Mazza	ESA/ESOC
Roland Ivarnez	France/CNES
Jean Latour	France/CNES
Mauro Danati	Italy/ASI
Hara Hideo	Japan/NASDA
Peter Vaughan	UK/BNSC
Peter Allan	UK/BNSC
Adrian Hooke	USA/NASA
David Townley	USA/NASA
Tom Gannett	USA/NASA/GST
Robert Stephens	USA/NASA/QSS

1. INTRODUCTION

The meeting was convened by Mr. Jean Latour at 1300 hours on 14 December, 1999. He first announced his retirement from CNES and indicated CNES' willingness to retain the position of SC13 Chairman in the person of Mr. Roland Ivernez. This was accepted by unanimous acclamation.

2. ROLL CALL

Mr. Latour conducted a roll call. He then welcomed all who were in attendance including Mr. Mauro Danati of ASI who was attending his first SC13 meeting.

3. ADOPTION OF THE AGENDA

The draft agenda, previously distributed, was approved. It is Attachment A to these minutes.

4. APPOINTMENT OF DRAFTING COMMITTEE

In compliance with the ISO requirement to appoint a drafting committee, SC 13 resolved that Mr. Robert Stephens, in support of the SC 13 Secretariat, would be responsible for drafting and distributing the meeting minutes.

5. REPORT OF THE SECRETARIAT

Mr. Townley presented the Secretariat's Report . In keeping with a decision taken at the May 1999 meeting, printed copies of the membership lists were not included, but had, however, been put on the CCSDS Home Page for general access. The balance of the report consisted of the Action Items from the May 1999 meeting (see below) and the SC13 Program of Work.

Review Of Action Items:

Mr. Stephens reviewed the status of the OPEN actions. (The remaining action items from the previous meeting had either been closed or a recommendation had been made by the Secretariat to withdraw them.)

SC-13/98-7 The SC13 Secretariat will contact the Secretariat of SC14 to coordinate the development of a program of work for joint SC13/SC14 activities.

Assignee: Secretariat

Due Date: 31 Mar 99

STATUS: CONTINUING: This issue will continue to be pursued with SC-14. There have had some discussions on SOIF and the creation of new space TC.

(This was discussed further later in the meeting.)

SC-13/99-1 The Secretariat will determine with the ISO Secretary General just when a document becomes an FDIS.

Assignee: Secretariat

Due date: July 15

STATUS: CLOSED: A document does not become an FDIS until notice is provided by ISO Secretary General

SC-13/99-2 Determine how ECSS plans to handle any changes to ISO/TC20/SC13 standards as they are adopted by ECSS

Assignee: ESA

Due Date: Next Meeting

STATUS: CLOSED: Dr. Lenhart plans to propose that ECSS adopt "as is" the CCSDS Recommendations, especially those which are already ISO International Standards

SC-13/99-3 Resolve how the workload of translating into French the many new documents being processed by SC 13 as a result of this Spring 99 meeting can be accomplished.

Assignee: CNES (Ivernez), CSA (Bastikar) and ESA (Mazza)

Due Date: July 15

STATUS: CLOSED: There has been a problem in translating the SCPS document. There are no appropriate experts at CSA nor CNES. However, this work is progressing

SC-13/99-4 Review SC14 document entitled, ISO 14711, "Mission Operations

Assignee: SC13 members

Due Date: July 15

STATUS: CLOSED: This document had been distributed for SC13 comment and has now been forwarded by SC14 to ISO to become an International Standard

SC-13/99-5 Contact ISO/TC20/SC14 relative to their interest in conformance testing of products claiming compatibility with their standards

Assignee: Secretariat

Due Date: Next Meeting

STATUS: CLOSED: To be handled on a continuing basis

SC-13/99-6. Canvass your country's space systems supplier base to determine interest in an industry-lead conformance test bed.

Assignee: Members

Due Date: Next Meeting

STATUS: WITHDRAWN: To be handled on a continuing basis

An Action was assigned to the Secretariat to periodically remind members of open or continuing action items.

6. REVIEW OF PROGRAM OF WORK

Mr. Stephens reviewed the status of CCSDS documents before ISO. He was asked to check on the status of correspondence between Mr. Latour's office and Mr. Townley since the OAIS review has not yet been started.

Mr. Stephens' report is Attachment B to these minutes.

Progression of CCSDS Documents to ISO

There were no CCSDS Recommendations to be progressed to ISO at this meeting.

7. REPORT OF DELEGATES REGARDING ACTIVITIES RELATING TO SC 13

ITALY: Mr. Donati, being new to this activity, did not have an Agency report.

GREAT BRITAIN: Mr. Vaughn first noted that Dr. Peter Allan would be replacing him inasmuch as he was retiring. This has been a quiet period at BNSC but the British Standards Institute (BSi) continues to review drafts and documents from SC13 while another group tracks the SC14 activity. He presented a list of the BSi standards which are derived from the CCSDS/ISO standards. He indicated that BNSC continues to encourage UK organizations to participate in conformance testing of SC13 standards. Some fund-sharing arrangement may be necessary to encourage industry to invest in such an effort.

Mr. Vaughn's report is Attachment C to these minutes.

CHINA: Mr. Xiaolian reported that CASI has been tracking the CCSDS and SC13 standards since 1990. He indicated that documents are being translated in Chinese and some of the standards are being implemented and are being considered for their new TT&C and data handling systems. He listed the CCSDS and SC13 areas in which CASI participates.

Mr. Xiaolian report is Attachment D to these minutes.

FRANCE: Mr. Latour itemized the areas in which CNES participates and described their efforts to promote the Recommendations within the French Office for Space and Aerospace. He stated that translation into French has been started on two of the latest documents. He noted also that CNES is participating in the ECSS notably in Engineering Ground Systems and Operations and with SC14.

Mr. Latour's report is Attachment E to these minutes.

CANADA: Mr. Bastikar identified the Canadian missions which are conforming to CCSDS/SC13 standards. He stated that he plans to give a further report on CSA's testbed for conformance testing at the next meeting.

Mr. Bastikar did not provide a written report.

GERMANY: Dr Wanke explained some of the procedure within DLR relative to getting EIS numbers for translation into German and the need for DIM approval. He indicated that he will provide a thorough report for the next SC13 meeting.

There was no written report from DLR. (Dr. Wanke has been asked to provide more information for these minutes.)

ESA: Dr. Mazza indicated that ESA had no report.

BRAZIL: Dr. Bergamini presented the several organizations within Brazil which are associated with technical standards and space activities. He explained the status of SC13 documents within Brazil, especially those which are being adopted by ABNT, He also identified those which are being translated into Portuguese.

Dr. Bergamini's report is Attachment F to these minutes.

UNITED STATES: Mr. Townley reported briefly for Mr. Adrian Hooke on the USTAG20 meeting on 07 October, 1999, noting SC14's interest in becoming a new Technical Committee under ISO and separated from TC20. SC14 has also inquired as to whether SC13 would be interested in joining them. (This was discussed further later in the meeting.) He reported that the membership of the US Subcommittee Advisory group to SC13 is being revised as NASA tries to expand industrial participation in SC13 SCAG meetings. This committee had also prepared a US position relative to Spacecraft Onboard Interfaces.

Mr. Hooke's report is Attachment G to these minutes.

JAPAN: Mr. Hara reported that the ISO/TC20/SC13 National Committee of Japan has approved DIS17433 without change. He then showed NASDA's current status of its action items. He noted changes to their Data Base. He informed the Committee that Mr. Iwasake has retired.

Mr. Hara's report is Attachment H to these minutes.

Following the Agency reports, an Action was taken for the Secretariat to develop a template for agency reports which included a provision for showing the status of ongoing activities.

8. ANY OTHER BUSINESS

New Technical Committee

Mr. Bastikar reported that SC14 has expressed an interest in becoming an independent TC. They have approached SC13 as to its interest in joining them. SC13 was not seen in a subservient role in such an organization. SC14 feels that TC20's major program thrust is aircraft systems and only slightly involved with space systems. SC14 feels it has become a productive and growing organization and deserves to be a separate committee. Mr. Bastikar feels that the SC13 area of responsibility is completely different and perhaps should not be associated with SC14; it perhaps could stay with SC13. Dr Reid's tenure is up in the near future. TC20 is industry-oriented. It was not clear as to "Who will make this decision?" This action by SC14 is not an urgent matter. There is a TC plenary scheduled for April 2000 in Mexico and this subject is not on the plenary agenda. SC14 feels that the public's perception is that space activities should be a separate entity. However, Mr. Bastikar does not feel that SC13 and SC14 have enough in common to merit a closer relationship. There were also concerns about funding a new TC and the identification of its Secretariat.

SC13's position was resolved as: "There being no convincing argument at this time for SC13 to change its status, it will continue its present association with TC20 and, meanwhile, monitor developments and address this subject again in the future."

SC-13 Strategic Plan

Mr. Townley noted that this subject had been previously deferred while the CCSDS completed its Strategic Plan. This has now been accomplished and it was now time to address the subject. In fact, SC13 has been asked in the TC20 Plenary meeting to submit a strategic Plan.

An action was taken for the Secretariat to develop a Strategic Plan for SC13 consideration.

The Secretariat was also directed to provide the SC13 members with copies of the current TC20 Plan

UNISPACE Report

Dr Lenhart, having attended this meeting, gave a report on it. He indicated that the thrust of the meeting was to make space activities available to developing countries. In this context, he had given a paper of Space Operations and the use of our (?) Open standards activities. His paper was an overview of our activities together with perceived benefits to developing countries. He had stressed that our standards are open

standards and can be used without royalties and at the same time expose the users to high technology systems.

He noted that a resolution had been proposed to the full UN Committee that the use of OPEN standards be endorsed. However, the full Committee had not accepted this resolution, in part because time had precluded its being worded in a more favorable manner.

Dr. Lenhart's report is Attachment I to these minutes.

9. REQUIREMENTS CONCERNING A SUBSEQUENT MEETING

The following meeting schedule was adopted:

- +Spring 2000 Toulouse, France, 28 (PM) June, 2000
- +Fall 2000 TBD, United States 29 (PM) November, 2000
- + Spring 2001 TBD, United Kingdom, TBS May, 2001

10. APPROVAL OF RESOLUTIONS

Resolutions were made to:

Approve the change of the SC13 chairman

Thank Mr. Latour for his contributions to the program

Thank Mr. Vaughn for his contributions to the program

Thank ESA and ESRIN for the fine hosting the Committee had enjoyed.

Following a reading of the Resolutions made at this meeting, Mr. Latour wished everyone a happy Christmas and a happy New year – with no Y2K problems – and then adjourned the meeting at 1530.

DRAFT RESOLUTIONS
ISO/TC 20/SC 13 MEETING
Frascati, Italy
December 14, 1999

SC-F99-R01 Members resolved to study benefits of SC13's changing its relationship with TC20 as discussed during the Fall 99 meeting.

SC-F99-R02 The SC13 members resolve to accept the proposal by CNES and Mr. J. Latour that the Chairmanship of SC13 remain with CNES and that Mr. Roland Ivernez assume that chair.

SC-F99-R03 SC13 resolves to thank Mr. Peter Vaughn for his years of dedicated service to the Space Data Systems program and to wish him every success in his future endeavors.

SC-F99-R04 SC13 resolves to thank Mr. Jean Latour for his contributions to the Space Data Standards program in general and to the SC13 program in particular and to wish him every success in his future endeavors.

SC-F99-R05. SC13 resolves to accept the proposal of the French Space Agency (CNES) to host the Spring 2000 SC13 meeting in Toulouse, France on 28 (PM) June, 2000. The TSG and MC will also be hosted there on 26-28 (AM) June, 2000.

SC-F99-R06 SC13 resolves to accept the proposal of the National Aeronautics and Space Administration (NASA) to host the Fall 2000 SC13 meeting in TBD, United States on 29 (PM) November, 2000. Meanwhile, INPE is still holding open its offer to host the SC13 Fall 2000 meeting in Brazil. A final decision will be made in Spring 2000 meeting in Toulouse.

SC-F99-R07. SC13 resolves to accept the proposal of the British National Space Center (BNSC) to host the Spring 2001 SC13 meeting in the United Kingdom with dates and location to be determined.

SC-F99-R08. SC13 resolves to thank the ESA and ESRIN organizations for the gracious hospitality shown to us during this meeting and for the delicious buffet provided to the participants.

DRAFT ACTION ITEMS
ISO/TC 20/SC 13 MEETING
Frascati, Italy
December 14, 1999

The following actions were developed during the Fall 1999 SC13 meeting:

SC-F99-A1 Develop a plan for periodically reminding the members of open action items and continuing activities.

Assignee: Secretariat
Due Date: 01, March 2000

SC-F99-A2 Provide SC members with copy of (1) Reflections of the International Telemetry Conference of October, 1999 and (2) the current TC20 Strategic Plan

Assignee: Secretariat
Due Date: 01, March 2000

SC-F99-A3 Develop and distribute for comment a Strategic Plan for SC13

Assignee: Secretariat
Due Date: 01, March 2000

SC-F99-A4 Develop and distribute for comment, a template for agency reports

Assignee: Secretariat
Due Date: 01, March 2000

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ATTACHMENT A
DRAFT AGENDA

ISO/TC 20/SC 13/N200
18th Meeting of ISO/TC 20/SC 13
Frascati, Italy
14 December 1999

DRAFT AGENDA

1. Opening of the meeting (1:00 PM)
2. Roll call of delegates
3. Adoption of the agenda (ISO/TC 20/SC 13/N200)
4. Appointment of drafting committee
5. Report of the secretariat
 - o Action Items
 - o Approval of Draft Minutes of the May 1999 Meeting
 - o Review Program of Work
6. Report of delegates regarding activities relating to SC 13
7. Report of liaison organizations regarding activities relating to SC 13
8. Consideration of new projects/endorsement of existing standards from non-ISO bodies
9. Any other business
 - o Proposal for a new space oriented ISO Technical Committee
 - o SC-13 Strategic Plan
 - o Unispace III Results/Follow-up
10. Requirements concerning a subsequent meeting
11. Approval of resolutions and action items
12. Closing of the meeting

ATTACHMENT B
STATUS OF WORK ITEMS

STATUS OF ISO/TC20/SC13 WORK PROGRAM AS OF 14 DECEMBER 1999
COMPLETED WORK ITEMS
 (Approved International Standards)

ISO NUMBER	TITLE	BASED ON CCSDS DOC		CURRENT STATUS
		Doc.#	Date	
ISO 11103	Radiometric & Orbit Data: 1991	501.0-B-1	87-01	Reconfirmed 1996
ISO 11104	Time Code Formats: 1991	301.0-B-2	90-04	Reconfirmed 1996
ISO 12172	Telecommand Part 2--Data Routing Services	202.1-B-2	92-11	Published
ISO 11754	Telemetry Channel Coding: 1999	101.0-B-4	99-05	Resubmitted as DIS 99-11
ISO 12175	SFDU-Structure & Construction Rules: 1994	620.0-B-2	92-05	Reconfirmed 99-05
ISO 13419	Packet Telemetry: 1997	102.0-B-3	92-11	Published
ISO 13420	AOS, N&DL: Architectural Specification:1997	701.0-B-2	92-11	Published
ISO 13764	SFDU--Control Authority Procedures: 1996	630.0-B-1	93-06	Reconfirmed 99-05
ISO 14961	PVL Specification (CCSD 0006)	641.0-B-1	92-05	Published
ISO 14962	ASCII Encoded English (CCSD 0002)	643.0-B-1	92-11	Reconfirmed 99-05
ISO 15395	SFDU-Control Authority Data Structures	632.0-B-1	94-11	Published
ISO 15396	Cross Support Reference Model-SLE Services	910.4-B-1	96-05	Published
ISO 12171	Telecommand Part 1--Channel Services	201.0-B-1	87-01	Published
ISO 12173	Telecommand Part 2.1--Command Op. Proc.	202.1-B-1	91-10	Published
ISO 12174	Telecommand Part 3--Data Mgmt. Procedures	203.0-B-1	87-01	Published

STATUS OF ISO/TC20/SC13 WORK PROGRAM AS OF 14 DECEMBER 1999
(Items in Progress)

ISO NUMBER	TITLE	BASED ON CCSDS DOC		CURRENT STATUS
		Doc.#	Date	
CD 14721	Space Systems - Archiving Space Data	650.0-R-1	99-06	Submitted for DIS 99-08
FDIS 15887	Lossless data compression	121.0-B-1	97-05	Being Submitted to Formal Vote per Abram Letter of 99-11-03
FDIS 15888	Standard formatted data units -- Referencing environment	622.0-B-1	97-05	Being Submitted to Formal Vote per Abram Letter of 99-11-03
FDIS 15889	Data description language - EAST specification	644.0-B-1	97-05	Being Submitted to Formal Vote per Abram Letter of 99-11-03
DIS 15890	AOS Audio/Video and Still-Image Communications Services	704.0-B-1	94-05	Voting completed- 100% affirmative Delay granted in progressing to FDIS P1-A is studying continued applicability
DIS 15891	Space communications protocol specification (SCPS)-- Network protocol (SCPS-NP)	713.0-B-1	99-05	FDIS Requested 99-08
DIS 15892	Space communications protocol specification (SCPS) -- Security protocol (SCPS-SP)	713.5-B-1	99-05	FDIS Requested 99-08
DIS 15893	Space communications protocol specification (SCPS) -- Transport protocol (SCPS-TP)	713.4-B-1	99-05	FDIS Requested 99-08
DIS 15894	Space communications protocol specification (SCPS) -- File protocol (SCPS-FP)	717.0-B-1	99-05	FDIS Requested 99-08
FDIS 17433	Packet Telemetry Services	103.0-B-1	96-05	CCSDS approved modified cover sheet to accompany IS
AWI 17355	CCSDS File Delivery Protocol	727.0-R-2	99-06	ISO date: 99-05

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ATTACHMENT C
REPORT FROM GREAT BRITAIN

BNSC Report to SC13, December 99

The work of the British Standards Institute (BSi) ACE/67 (Aerospace Committee for Engineering 67) Committee for Information Transfer Standards has continued its work in reviewing the drafts, DIS and FDIS documents from SC13. A similar committee (ACE/68) tracks the work of SC14 and P. Vaughan (now replaced by P Allan), the chairman of ACE/67 attends some of the ACE/68 meetings. The relationships with ECSS continues to evolve with the establishment of procedures for ECSS to submit documents for adoption by the ISO. An Electronic Document Distribution system has been tested for ACE/68 and this should now be implemented for both ACE/67 and 68.

Please note that Dr Peter Allan has taken over from P Vaughan as the UK delegate to SC13.

Documents from SC13 to ACE/67

All of the draft standards from SC13, and reviewed by ACE/67, have been approved and passed on for issue as BSi Standards including the recent draft of:

ISO/DIS 17433 Space data and information transfer systems - Packet Telemetry Services.

The standards now issued as BSi standards remain as follows:

- BS Z 1 Radio Metric and Orbit data
- BS Z 2 Time Code Formats
- BS Z 3 Telemetry Channel Coding
- BS Z 4 SFDUs Structure and construction rules
- BS Z 5 SFDUs Control authority procedures
- BS Z 6 PVL specification
- BS Z 7 ASCII encoded English
- BS Z 8 Packet Telemetry
- BS Z 9 AOS Network and data links
- BS Z 10 SFDUs Control authority data structures
- BS Z 11 Cross Support Reference Model - SLE
- BS Z 12 Telecommand - Channel Service
- BS Z 13 Telecommand - Data Management Service
- BS Z 14 Telecommand - Command Operations procedures
- BS Z 15 Telecommand - Data Routing Service

Conformance Testing

BNSC continues to encourage UK organizations or UK industry to participate in conformance testing of SC13 standards but without any definitive proposals to date. These could occur as part of the bid to BNSC for UK industrial funding early in 2000.

P Vaughan December 2.12.99

ATTACHMENT D
REPORT FROM CHINA

CHINA REPORT To ISO/TC20/SC13

Dec.14• 1999

1.CASI Support to SC13 activities

After CASI agreement, CAS approved for china following ISO documents

ISO 11754 Space data and information transfer systems---Telemetry channel coding

ISO 12175 Space data and information transfer system---Standard formatted data units ---
Structure and construction

ISO 11754 Space data and information transfer systems---Packet telemetry services

2.Researching and applying on CCSDS & SC13 standards

Since 1990, We have been tracking, researching, translating and publishing on CCSDS & SC13 standards. We have published four books(including 20 CCSDS standards) in all held several propaganda conferences and seminars on special subject. We have pre-researched on some standards. Many standards such as Radio Frequency, Packet Telemetry, Channel Coding etc have been applied partly. All of these promote the spreading and carrying out of CCSDS & SC13 standards.

Chinese Academy of Space Technology(CAST) have made out Research Plan on CCSDS Space Data System and divided the study on CCSDS & SC13 into two stage. During the first stage, we regards various satellites which are in low orbit and carry out conventional missions as the applying object. We also take the up and down channel dynamic management of medium and low rate as main study content. It's our goal to provide new system and technology on telemetry, telecommand and tracking system. We want to finish a series of developing on new technology and new equipment, researching on experiment model, system integrating and testing. We also reform the PCM system and applying them into space

mission. In the second stage We Will spread the research results into such space data system that is high rated has large quantity of information and manage various data stream. At the mean time we will reform the earth-based aerospace telemetry and command communications network gradually in order to be compatible with the CCSDS & SC13 standards.

3.Participating the research work on CCSDS & SC13 standards

Based on the above research we attend research works and activities held by CCSDS & SC13 organization regularly. CAST has attended the activities of three CCSDS working groups. They are the Ad-hoc working group on security the modifying group on COP-1 and the working group on on-board equipment Interface.

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ATTACHMENT E
REPORT FROM FRANCE

6 December 1999

CNES REPORT

TC/20/SC/13 MEETING ESRIN (FRASCATI) December 1999

FOREWARD

After the Jean Latour 's retirement, at the end of the year 1999,CNES submites that Mr Roland Ivarnez complete the term of Mr Jean Latour as Chairman of ISO/SC13 until November 2002 .

INTRODUCTION

In the CCSDS domain:

- CNES is working with SC/13 secretariat and with ISO secretariat in order to move CCSDS books to ISO norms according to ISO procedures.
- CNES is also working with BNAE (French Office for Space and Aerospace Standardisation) and AFNOR (French Normalisation Organisation) in order to promote CCSDS recommendations in the French industry community.
- CNES provides some technical supports in CCSDS panels.

CNES support to SC/13 activities.

Approval

- After CNES agreement AFNOR approved for France without comment the ISO/DIS 17433 (CCSDS 103.O-B-1)Packet Telemetry Services

ISO procedures

- According to the last SC/13 decisions, the Chairman and the secretariat of ISO/SC/13 Secretariat initiate following ISO procedures:

For moving from ISO/DIS to ISO/FDIS approval stage

- DIS 15891 (CCSDS 713.0-B-1) SCPS network protocol
- DIS 15892 (CCSDS 713.5-B1) SCPS security protocol
- DIS 15893 (CCSDS 714.0-B-1) SCPS transport protocol
- DIS 15894 (CCSDS 717.5-B-1) SCPS file protocol

For confirmation for another five years without modification
ISO 12175 (CCSDS 620.0-B-2) SFDU structure and construction rules
ISO 13764 (CCSDS 630.0-B-1) SFDU control authority procedures
ISO 14962 (CCSDS 643.0-B-1) ASCII encoded English
For moving from CD to ISO/DIS approval stage
ISO CD14721 (CCSDS 650.0-R-1) OAIS

- Two documents shall be still moved to ISO
 - For resubmitting as DIS
 - ISO 11754 (CCSDS 101.0-B-4) telemetry channel coding
 - For submitting as CD after red book stabilisation
 - CCSDS 727.0-R-2 CFDP file delivery protocol
- The Chairman and the CCSDS secretariat agreed the second coversheet document for ISO/DIS 17433 (CCSDS 103.-B-1) Packet telemetry services.

French translation

- CNES start the French translation of CD 14721 (CCSDS 650. 0-R-1) OAIS.
This document will be available for the end of January 2000.
- CNES start the French translation of DIS 11754 (CCSDS 101.0-B-4)
telemetry channel coding .
- Due to lack of expert in the SCPS working group ,CNES would not provide the French version for SCPS recommendations .According to SC/13 action number 99-3 CNES is waiting a proposal from ESA or CSA .

Other standardisation activities

- In the field of Space Standardisation CNES is working for ECSS(European Cooperation for Space Standardisation), notably in drafting group E 70 Space Engineering Ground Systems and Operations .The ECSS document level 2 E70 draft 13 has been approved by ECSS and shall be moved to ISO as DIS .
- For ISO/TC /20/ SC 14/ WG 3 CNES is working in following drafting groups.
 - ISO/DIS 14620 Launch Operations
 - ISO /CD 14950 Satellite Operability in review by SC/14 before moving to ISO as DIS .

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ATTACHMENT F
REPORT FROM BRAZIL



ABNT- BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS
CB 08 - BRAZILIAN COMMITTEE OF AERONAUTICS AND SPACE
SC 08:001 - SUBCOMMITTEE OF SPACE ACTIVITY
CE 08:001.06 - COMMISSION OF STUDIES IN SPACE DATA AND INFORMATION SYSTEMS

Brazil/ABNT REPORT SC-13/TC-20/ISO MEETING

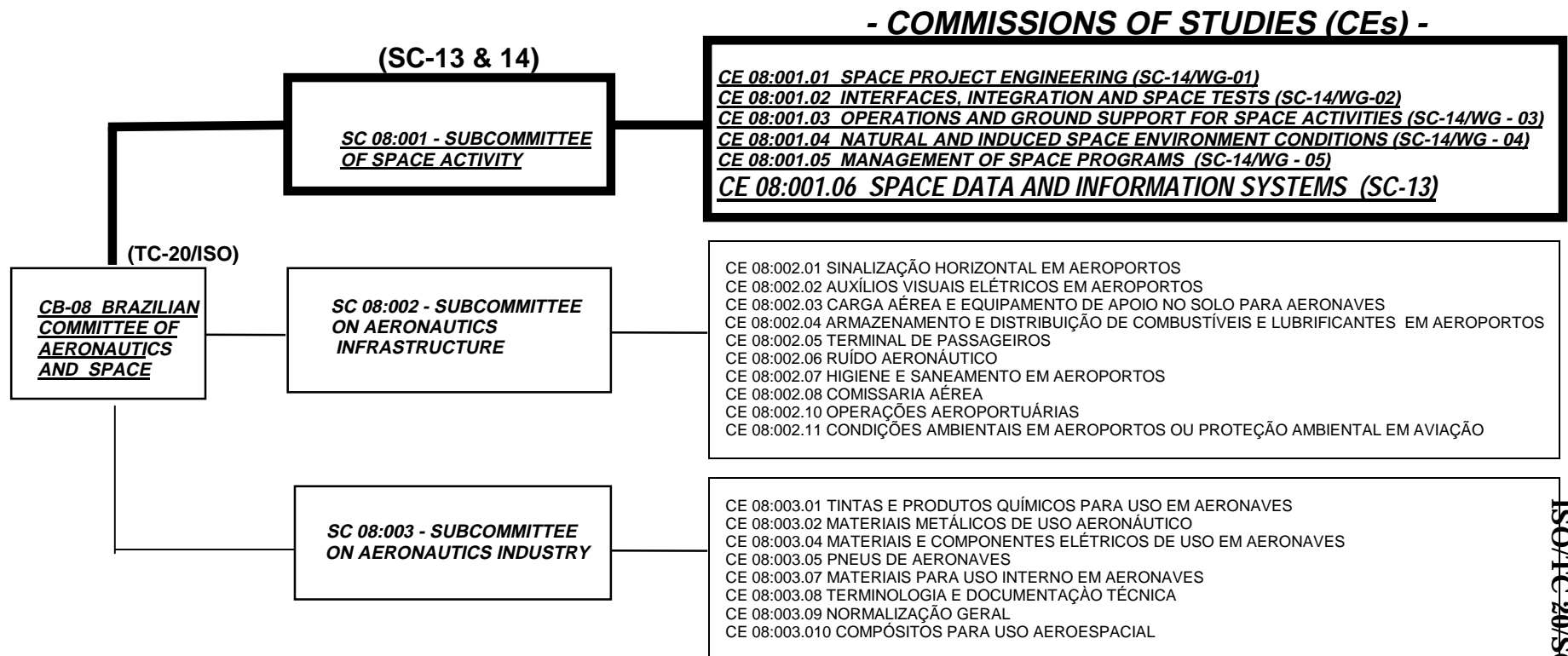
14 December 1999

ESRIN/ESA, Frascati, Italy



ABNT- BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS
 CB 08 - BRAZILIAN COMMITTEE OF AERONAUTICS AND SPACE
 SC 08:001 - SUBCOMMITTEE OF SPACE ACTIVITY
 CE 08:001.06 - COMMISSION OF STUDIES IN SPACE DATA AND INFORMATION SYSTEMS

STRUCTURE OF CB-08/ABNT/Brazil: THE TC-20/ISO EQUIVALENT



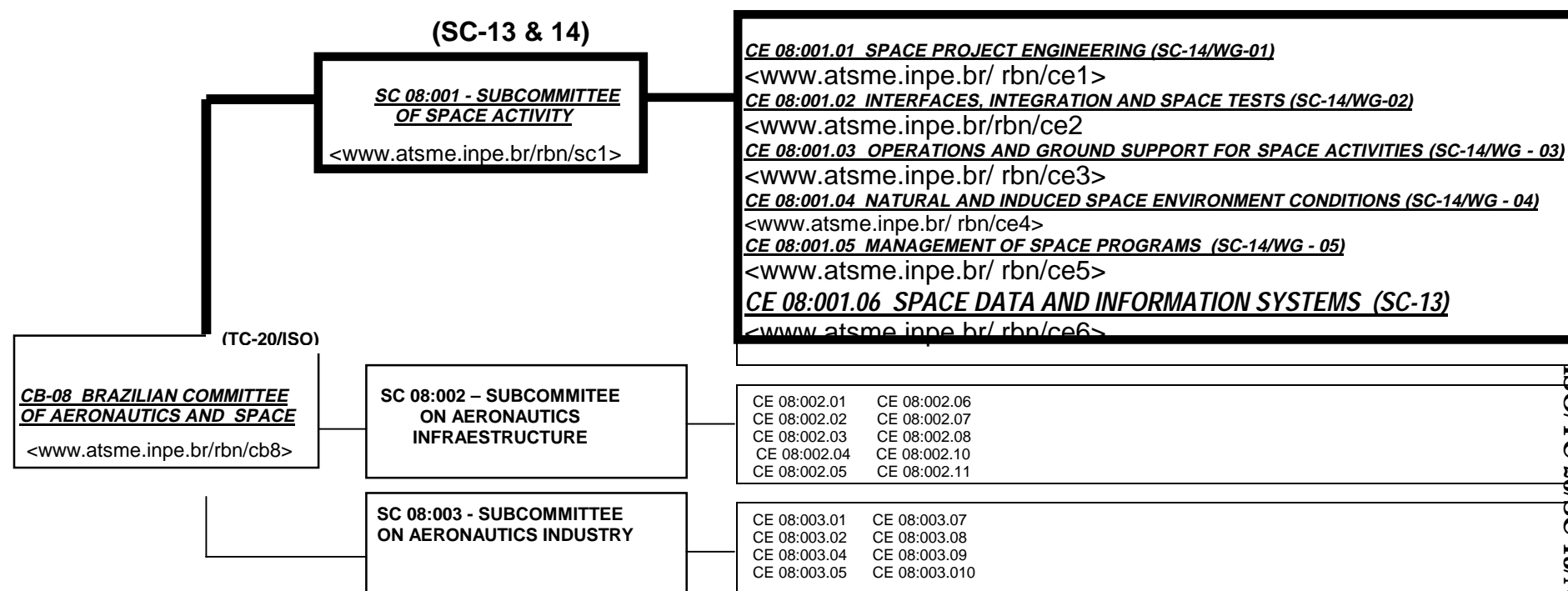


ABNT- BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS
 CB 08 - BRAZILIAN COMMITTEE OF AERONAUTICS AND SPACE
 SC 08:001 - SUBCOMMITTEE OF SPACE ACTIVITY
 CE 08:001.06 - COMMISSION OF STUDIES IN SPACE DATA AND INFORMATION SYSTEMS

BRAZILIAN INFORMATION NETWORK FOR THE STANDARDIZATION OF SPACE ACTIVITIES–RBNAE HOME PAGE URL ADDRESS: <www.atsme.inpe.br/rbn>

- MAIN URL ADDRESSES OF RBNAE NETWORK-

- COMMISSIONS OF STUDIES (CEs) -



ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS - ABNT/Brazil URL-WWW ADDRESS: <http://www.abnt.org.br>



ABNT- BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS
CB 08 - BRAZILIAN COMMITTEE OF AERONAUTICS AND SPACE
SC 08:001 - SUBCOMMITTEE OF SPACE ACTIVITY
CE 08:001.06 - COMMISSION OF STUDIES IN SPACE DATA AND INFORMATION SYSTEMS

CURRENT MAIN ACTIONS OF CE 08:001.06

- 1. UNDER REVIEW: SC-13 Doc. ISO/DIS 17433 on 'Space data and information transfer systems - Packet telemetry services';**
- 2. PREPARATION AND MAINTENANCE OF THE SUMMARIES IN PORTUGUESE OF ALL SC-13 DOCS, FIRST COMPLETION BY MARCH 2000;**
- 3. PLAN TO FULLY TRANSLATE TO PORTUGUESE, IN 2000, THE FOLLOWING (FIRST) THREE SC-13 AND/OR CCSDS DOCUMENTS FOR ADOPTION AS ABNT (BRAZIL) STANDARDS (FROM ISO OR CCSDS BLUE BOOKS) OR REPORTS (CCSDS GREEN BOOKS), IN BRAZIL:**
 - CCSDS 121.0-B-1: Lossless Data Compression. Blue Book. Issue 1. May 1997. This Recommendation has been adopted as ISO/FDIS 15887 (STANDARD CANDIDATE);**
 - CCSDS 120.0-G-1: Lossless Data Compression. Green Book. Issue 1. May 1997. (REPORT CANDIDATE);**



ABNT- BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS
 CB 08 - BRAZILIAN COMMITTEE OF AERONAUTICS AND SPACE
 SC 08:001 - SUBCOMMITTEE OF SPACE ACTIVITY
 CE 08:001.06 - COMMISSION OF STUDIES IN SPACE DATA AND INFORMATION SYSTEMS

- **CCSDS 320.0-B-2: CCSDS Global Spacecraft Identification Field: Code Assignment Control Procedures. Blue Book. Issue 2. October 1998 (STANDARD CANDIDATE).**

STATUS OF SC-13 STANDARDS AIMED FOR ADOPTION BY ABNT IN BRAZIL

NS 99 - Plano de Normalização Nacional ('National Plan of Normalization')
Associação Brasileira de Normas Técnicas - ABNT ('Brazilian Association for Technical Standards')
Plano de Projetos de Normalização Submetido pela CE 08:001.06 à ABNT, em MAIO de 1999. ('Plan of Projects Submitted by CE 08:001.06 to ABNT in MAY 1999').

- List of Projects of Candidate Documents for becoming ABNT Standards in Brazil -

CB/ONS: 08 AERONÁUTICA E ESPAÇO ('AERONAUTICS AND SPACE')
SC: 08001 ATIVIDADE ESPACIAL ('SPACE ACTIVITY')
CE: 0800106 SISTEMAS ESPACIAIS DE DADOS E INFORMAÇÕES ('SPACE DATA AND INFORMATION SYSTEMS')
COORDENADOR ('COORDINATOR'): Eduardo W. Bergamini - INPE/MCT

Nr. Projeto: 08:001.06-001 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Dados Radiométricos e Orbitais ('Radio Metric and Orbit Data') Origem / Ano: ISO 11103/1991 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-002 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Formatos de Códigos de Tempo ('Time Code Formats'): 1991 Origem / Ano: ISO 11104/1991 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-003 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Codificação de Canal de Telemetria ('Telemetry Channel Coding'): 1994 Origem / Ano: ISO 11754/1994 Observação: doc. já revisto pela ABNT, para a ISO



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Nr. Projeto: 08:001.06-004 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Telecomando ('Telecommand') -- Serviço de Canal ('Channel Service')-- Especificação da Arquitetura ('Architectural Specification') Origem / Ano: ISO 12171/1998 Observação: doc. já revisto pela ABNT, para a ISO
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STATUS OF SC-13 STANDARDS AIMED FOR ADOPTION BY ABNT IN BRAZIL

CONTINUATION

Nr. Projeto: 08:001.06-005 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Telecomando ('Telecomand') -- Serviço de Roteamento de Dados ('Data Routing Service') Origem / Ano: ISO 12172/1998 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-006 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Telecomando ('Telecommand') -- Procedimentos para Comandos de Operação ('Command Operation Procedures') Origem / Ano: ISO 12173/1998 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-007 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Telecomando ('Telecommand') -- Serviço de Gerenciamento de Dados ('Data Management Service') -- Especificação da Arquitetura ('Architectural Specification') Origem / Ano: ISO 12174/1998 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-008 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Unidades de Dados com Formato Padrão - SFDU ('Standard Formatted Data Units')-- Regras de Estrutura e de Construção ('Structure & Construction Rules') Origem / Ano: ISO 12175/1994 Observação: doc. já revisto pela ABNT, para a ISO. <u>SUMÁRIO do Proj.08 00 .06 008</u>
Nr. Projeto: 08:001.06-009 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Telemetria por Pacotes ('Packet Telemetry') Origem / Ano: ISO 13419/1997 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-010 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Sistemas Orbitais Avançados - AOS ('Advanced Orbiting Systems') -- Redes e Enlaces de Dados ('Networks and Data Links') -- Especificação da Arquitetura ('Architectural Specification') Origem / Ano: ISO 13420/1997 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-011 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Unidades de Dados com Formato Padrão - SFDU ('Standard Formatted Data Units') --Procedimentos da Autoridade de Controle ('Control Authority Procedures') Origem / Ano: ISO 13764/1996 Observação: doc. já revisto pela ABNT, para a ISO. <u>SUMÁRIO do Proj.08 001 .06 011</u>



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CONTINUATION

Nr. Projeto: 08:001.06-012 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Sistemas Espaciais ('Space Systems') - Arquivamento de Dados Espaciais ('Archiving Space Data') Origem / Ano: ISO/CD 14721 Observação: doc. a ser revisto pela ABNT, para a ISO.
Nr. Projeto: 08:001.06-013 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Especificação da Linguagem PVL ('PVL Specification') Origem / Ano: ISO 14961/1997 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-014 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Inglês Codificado em ASCII ('ASCII Encoded English') Origem / Ano: ISO 14962/1997 Observação: doc. já revisto pela ABNT, para a ISO. SUMÁRIO do Proj.08 001 06 014
Nr. Projeto: 08:001.06-015 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Unidades de Dados com Formato Padrão - SFDU ('Standard Formatted Data Units') -- Estruturas de Dados da Autoridade de Controle ('Control Authority Data Structures') Origem / Ano: ISO 15395/1998 Observação: doc. já revisto pela ABNT, para a ISO. SUMÁRIO do Proj.08 001 06 015
Nr. Projeto: 08:001.06-016 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Modelo de Referência para Apoio Cruzado ('Cross Support Reference Model') -- Serviços de Extensão de Enlaces Espaciais ('Space Link Extension Services') Origem / Ano: ISO 15396/1998 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-017 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Compressão de Dados sem Perda ('Lossless Data Compression') Origem / Ano: ISO/FDIS 15887 Observação: doc. DIS já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-018 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Unidades de Dados com Formato Padrão - SFDU ('Standard Formatted Data Units') -- Ambiente de Referência ('Referencing Environment') Origem / Ano: ISO/FDIS 15888 Observação: doc. DIS já revisto pela ABNT, para a ISO. SUMÁRIO do Proj.08 001 06 018



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CONTINUATION

Nr. Projeto: 08:001.06-019 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Linguagem de Descrição de Dados ('Data Description Language')-Especificação EAST ('EAST Specification') Origem/Ano: ISO/FDIS 15889 Observação: doc. DIS já revisto pela ABNT, para a ISO. SUMÁRIO do Proj.08 001 06 019
Nr. Projeto: 08:001.06-020 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Sistemas Orbitais Avançados, Redes e Enlaces de Dados - Áudio, Vídeo e Serviços de Comunicações de Imagens Estáticas (-- 'Advanced Orbiting Systems, Networks and Data Links - Audio, Video and Still-Image Communications Services') Origem / Ano: ISO/DIS 15890 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-021 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Especificação de Protocolo para Comunicações Espaciais - SCPS ('Protocol Specification for Space Communications') -- Protocolo de Rede - NP ('Network Protocol') Origem / Ano: ISO/DIS 15891 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-022 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Especificação de Protocolo para Comunicações Espaciais - SCPS ('Protocol Specification for Space Communications') -- Protocolo de Segurança - SP ('Security Protocol') Origem / Ano: ISO/DIS 15892 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-023 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Especificação de Protocolo para Comunicações Espaciais - SCPS ('Protocol Specification for Space Communications') -- Protocolo de Transporte - TP ('Transport Protocol') Origem / Ano: ISO/DIS 15893 Observação: doc. já revisto pela ABNT, para a ISO
Nr. Projeto: 08:001.06-024 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Especificação de Protocolo para Comunicações Espaciais - SCPS ('Protocol Specification for Space Communications') -- Protocolo de Arquivos - FP ('File Protocol') Origem / Ano: ISO/DIS 15894 Observação: doc. já revisto pela ABNT, para a ISO



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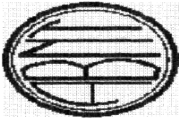
CONTINUATION

Nr. Projeto: 08:001.06-025 ICS:	Título do Projeto: Sistemas Espaciais de Dados e Informações ('Space Data and Information Systems') -- Serviço de Telemetria por Pacotes ('Telemetry Packet Services') Origem / Ano: ISO/FDIS 17433 Observação: doc. a ser revisto pela ABNT, para a ISO
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SAMPLE MODEL OF SUMARY OF A SC-13 STD BEING PROPOSED FOR ADOPTION BY ABNT

	ABRIL/1999	PROJETO 08:001.06-008
ABNT - Associação Brasileira de Normas Técnicas Sede: Rio de Janeiro Av. Treze de Maio, 13/28º andar CEP 20003-900 - Caixa Postal 1680 Rio de Janeiro - RJ Tel.: PABX (0-XX-21) 210-3122 Endereço eletrônico: www.abnt.org.br	Sistemas Espaciais de Dados e Informações - Unidade de Dados com Formato Padrão - SFDU -- Regras de Estrutura e de Construção Origem: ISO 12175 /(1994) ABNT/CB-08 - Comitê Brasileiro de Aeronáutica e Espaço SC 08:001 - Subcomitê de Atividade Espacial CE 08:001.06- Comissão de Estudos de Sistemas Espaciais de Dados e Informações 08:001.06-008 - Space Data and Information Systems - Standard Formatted Data Unit - SFDU -- Structure & Construction Rules Descriptors: Data Units. SFDU. Structure & Construction Rules. Data Formats. Space Data Systems.	02 páginas
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SUMÁRIO



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Introdução
Prefácio
1 Objetivo

Introdução

Prefácio

A ABNT - Associação Brasileira de Normas Técnicas - é o Fórum Nacional de Normalização. As Normas Brasileiras, cujo conteúdo é de responsabilidade dos Comitês Brasileiros (CB) e dos Organismos de Normalização Setorial (ONS), são elaboradas por Comissões de Estudo (CE), formadas por representantes dos setores envolvidos, delas fazendo parte: produtores, consumidores e neutros (universidades, laboratórios e outros).

Os projetos de Normas Brasileiras, elaboradas por no âmbito dos CB e ONS, circulam para Votação Nacional entre os associados da ABNT e demais interessados.

1 Objetivo

1.2 Este documento apresenta o SUMÁRIO de um PADRÃO ISO que está sendo considerado pela Comissão de Estudos CE 08:001.06 da ABNT para sua adoção como Norma Nacional (Brasil). Foi baseado em Documento de Padrão ISO, originalmente submetido pelo seu Subcomitê SC-13/TC-20 (em 'Space Data and Information Transfer Systems'), sob o título: 'ISO 12175: 1994 - Space Data and Information Transfer Systems - Standard Formatted Data Units - Structure & Construction Rules'.

1.3 Este Padrão ISO foi originalmente desenvolvido e adotado como Recomendação pelo 'Consultative Committee for Space Data Systems - CCSDS', sob o título: 'Recommendation for Space Data System Standards: STANDARD FORMATTED DATA UNITS - STRUCTURE AND CONSTRUCTION RULES, CCSDS 620.0-B-2, Blue Book, May 1992'.

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Last Revision : 17/11/99

RBNAE/EXTRANET

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ATTACHMENT G
REPORT FROM UNITED STATES



**ISO/TC20/SC13 Meeting
ESRIN, Frascati, Italy, 14 December 1999**

Report of US Activities

**Adrian J. Hooke, NASA-JPL
U.S. Representative**

Meetings

I participated in the USTAG20 meeting in Seattle, Washington, USA on 07 October 1999. It was apparent that SC14 wants to move out of TC20 and create a new "TC for Space". I have a strong concern here that SC14 is apparently acting unilaterally, without proper consideration of the role of SC13.

If such a new "TC for Space" is created, the AIAA will be the Secretariat. Since the existing SC14 Working Groups (WGs) would be transferred into this new TC, they should theoretically all be elevated to Subcommittees (SCs); however this would create added overhead for them (for instance, each would need a Secretariat) so I believe that they will be simply moved over as WGs. The question then has to be asked: what becomes of SC13? The options seem to be:

- a) Transfer SC13 intact, in which case the new TC would have one SC and several other WGs.
- b) Downgrade SC13 to a WG - in which case NASA's role of SC13 Secretariat would presumably be dissolved and the AIAA would take over.
- c) Refuse to move SC13 out of TC20.

My personal opinion is that I cannot see much justification for creating a new TC for Space at this time. In fact, given that they share some similar technologies, I can see some strong arguments for keeping "Aircraft and Space Vehicles" together in TC20. On the other hand, if such a TC is created then I would argue strongly that we should preserve our identity as a full Subcommittee and should not accept a downgrade to WG status.

USCAG13 Membership and Operating Mode

The membership of the US Subcommittee Advisory Group to SC13 (USSCAG13) is currently under revision in anticipation of a significantly expanded role in the overall standardization process, as indicated in Attachment-1. Advertisements for new US SCAG13 members (Attachment-2) were placed in the SAE Navigator magazine and the US Commerce Business Daily.

Potential New Work in Spacecraft Onboard Interface Standardization

USCAG13 created a US-wide position paper for input to the new CCSDS in the area of the standardization of spacecraft onboard interfaces, and key members participated in a workshop on this subject at ESTEC on 09-10 December.

Apologies for Absence

I apologize for my absence at this meeting as I have to attend a Next Generation Internet Principal Investigator meeting in Washington DC.

-o-o-o- end -o-o-o-

ISO/TC 20/SC13
Space Data and Information Transfer Systems
USSCAG13

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Telfax: +1 818 393 3575
e-mail: adrian.hooke@jpl.nasa.gov

Attachment-1

**Call for Delegates - U.S. Subcommittee Advisory Group to
ISO/TC20/SC13, Space Data and Information Transfer Systems**

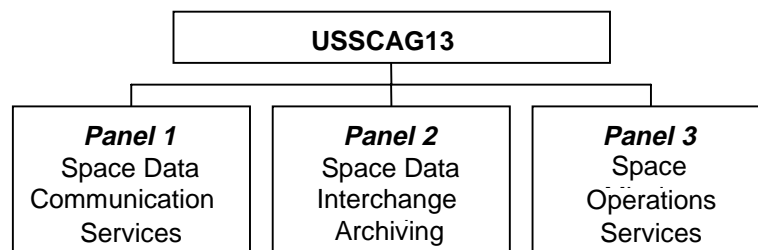
Volunteers members are solicited from all segments of the U.S. space community to participate in the development of international space standards in the field of Space Data and Information Transfer Systems.

The US Subcommittee Advisory Group (USSCAG13) to Technical Committee 20, Subcommittee 13 of the International Organization for Standardization (ISO) is the technical coordinating body for the United States for all matters dealing with the standardization of space data and information systems. Individuals, organizations or corporations who are interested in joining this advisory group are invited to contact the following individual:

Mr. Adrian J. Hooke, Chairman, USSCAG13
NASA Jet Propulsion Laboratory,
Telecommunications and Mission Operations Directorate
M/S 303-400, 4800 Oak Grove Drive
Pasadena, California 91109-8099, USA
+1.818.354.3063 voice; +1.818.393.3575 fax
Email: adrian.hooke@jpl.nasa.gov

Background Information

The work of USSCAG13 is currently organized into three-Panels:

**A Panel 1, Space Data Communications Services**

This Panel works in the strategic theme area of *developing highly efficient space communications services in resource-constrained environments*. Special sub-themes include *developing space missions as extensions of the Earth's Internet* and *developing interoperable spacecraft onboard interfaces*.

B Panel 2, Space Data Interchange and Archiving Services

This Panel works in the strategic theme area of *developing standard data interchange and archiving services for space missions*. These services support all phases of space data distribution, sharing and permanent retention.

ISO/TC 20/SC13
Space Data and Information Transfer Systems
USSCAG13

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Attachment-1 (cont)**C Panel 3, Space Mission Operations Services**

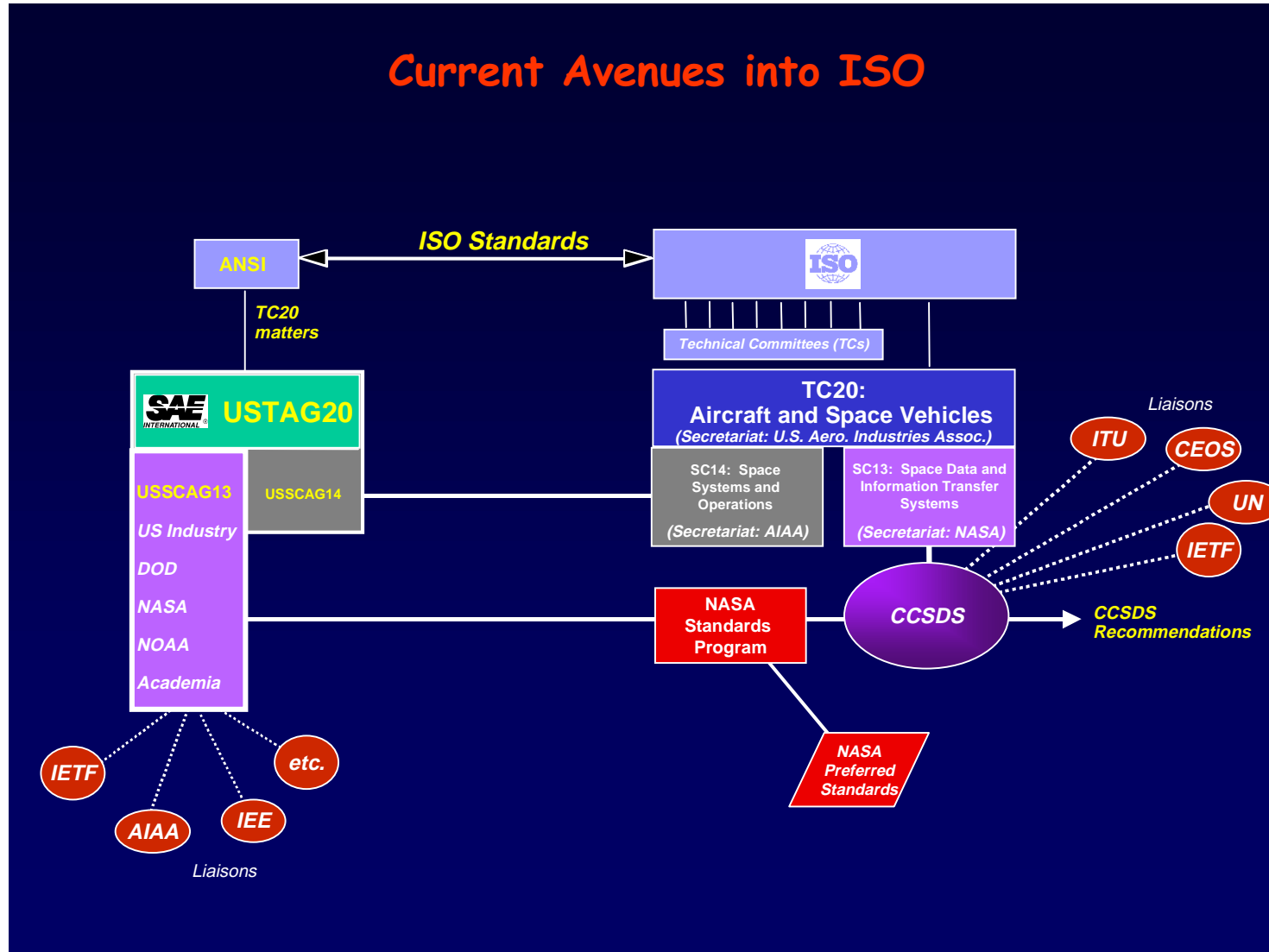
This Panel works in the strategic theme area of *developing standard space mission operations services*. These services often traverse the space/ground interface and support a variety of mission control activities.

As an open, voluntary, consensus standardization body, membership in USSCAG13 is open to all segments of the U.S. space community who have a stake in standardization of space data and information transfer systems, including:

1. *The U.S. private sector.*
2. *Federal Government Agencies.*
3. *State and Local Government Agencies.*
4. *Academic Institutions.*

All members of USSCAG13 are voluntarily appointed by their respective organizations to represent their interests, and are independently supported by those organizations in terms of necessary labor, travel and incidental resources. USSCAG13 operates in a mode where decisions are made via a process of consensus. Working groups of USSCAG13 will meet as necessary to execute standardization projects, and the full committee will periodically meet in plenary session to review technical progress, prepare for U.S. participation in ISO meetings, and debrief from such activities. The normal frequency of plenary meetings will be two times per year.

Current Avenues into ISO



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ATTACHMENT H
REPORT FROM JAPAN

STATUS REPORT OF JAPAN

ISO/SC13 (Dec. 14 1999/Frascati, Italy)

Related activity in Japan :

Space Data Committee of the Japanese Industrial Standards Committee (JISC) approved ISO/SC13 17433 without change.

ISO/SC13 17433 : Space data and information transfer systems -
Packet telemetry services (CCSDS 103.0-B-1)

ISO TC20/SC13 Action Item / NASDA

Old A/I number	Description	Status report
SC-13/93-1	Standards developed by standard bodies other than CCSDS	Continuing. No candidate proposal
New A/I number	Description	Status report
SC-13/99-4	Review SC-14 document entitled, ISO 14711, "Mission Operations Concepts"	Distributed to member of DIS subcommittee of Space Data Committee. No comment. Completed.
SC-13/99-6	Determine interest in an industry-lead conformance test bed.	Investigated in Space Data Committee and DIS Sub-comm. No interest presented. Complete

Corrections to ISO/TC20/SC13/N195

"Draft Minutes of ISO/TC20/SC13 Meeting of 19 May 1999:

1. SC13 DIRECTORY ISO/TC20/SC13/N21

Wrong

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ATTACHMENT I
REPORT CONCERNING UNISPACE III

UNISPACE III, Using Space to Create Global Solutions
Session on International Standardization in Space Technology
July 27, 1999

Dr. Macgregor S. Reid chaired this session, and the rapporteur was Mr. James E. French.

Representatives from regional and national space agencies, a major systems contractor, a commercial satellite communications corporation, and International Organization for Standardization (ISO) presented the major topics of current activity in Standardization for space technology. These activities are conducted using the ISO international consensus procedures. There are two ISO committees devoted to this purpose: Space Data and Information Transfer Systems (TC20/SC13) and Space Systems and Operations (TC20/SC1). All of the technical work of the first committee is conducted by the Consultative Committee for Space Data Systems (CCSDS).

The topics described the work of the ISO committees and regional standards bodies in the space field in the areas of satellite communications, remote sensing, man in space, data transfer, and data archiving. Topical details focused on how the results of standardization can benefit all nations with emphasis on developing countries.

The session recommends to the Committee on Peaceful Uses of Outer Space the following conclusions:

5. The results of international standardization not only provide obvious benefits to the major space agencies and corporations, but also facilitate the participation of organizations in developing countries in the benefits of these extraterrestrial endeavours,
6. The concept of Open Standardization permits smaller organizations to participate in the use of space assets in the least expensive manner including off-the-shelf products.
7. International systems and operations standards also enable the utilization of space programs and services in the broadest possible manner through common experiments designs, spacecraft interfaces, ground stations, and product qualification methods.
8. The session recommends that UN/CoPUOS formally endorse open standards as a mechanism to enable developing countries to have access to space and recognize ISO and affiliated organizations for their efforts toward this goal.